// lotto.cpp -- odds against winning
#include <iostream>
using namespace std;
// Note: some implementations require double instead of long double
long double odds(unsigned numbers, unsigned picks);
int main()
{
    double total, choices;
    cout << "Enter total number of game card choices and\n";
    "number of picks allowed:\n"
    while ((cin >> total >> choices) && choices <= total)
    {
        cout << "You have one chance in ",
        cout << odds(total, choices);      // compute the odds
        cout << " of winning.\n"
        cout << "Next two numbers (q to quit): ";
    }
    cout << "bye\n"
    return 0;
}

// the following function calculates the odds of picking picks
// numbers correctly from numbers choices
long double odds(unsigned numbers, unsigned picks)
{
    long double result = 1.0;  // here come some local variables
    long double n;
    unsigned p;

    for (n = numbers, p = picks; p > 0; n--, p--)
    {
        result = result * n / p ;
    }
    return result;
}

Here's a sample run. Notice that increasing the number of choices on the game card
greatly increases the odds against winning.